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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Daniel Putterman

Serial No.: 10/613,470

Filing Date: 07/02/2003

For: A NETWORKED PERSONAL VIDEO  
RECORDING SYSTEM

Examiner: ZHAO, DAQUAN

Group Art Unit: 2621

**AMENDMENT AND RESPONSE TO OFFICE ACTION**

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action mailed on May 03, 2007, Applicants submit the following amendments and remarks:

**Amendments to the Claims** begin on page 2 of this paper; and

**Remarks** begin on page 9 of this paper.

### **Amendments to the Claims**

The following listing of the claims will replace all prior versions, and listings, of claims in the application. Inserted material is underlined and deleted material is shown in strikethrough to show the changes made.

1. (Currently Amended) A method for networking a plurality of television recording devices, said method comprising the steps of:

receiving a plurality of television signals;

selecting a set of tuners from a plurality of tuners available on a network;

tuning each of said television signals in one of ~~a~~ the tuners selected from the plurality of tuners;

buffering said television signals on a storage medium in at least one PVR media server, the PVR media server configured for maintaining a write position for the buffering;

coupling a plurality of clients, over ~~a~~ the network, to said PVR media server;

assigning at least two of said clients to one or more of said tuners; and

transferring, over said network, buffered television signals to said clients.

2. (Original) The method as set forth in claim 1, wherein the step of tuning each of said television signals in one of a plurality of tuners comprises the step of tuning said television signals in a plurality of tuners located in a single PVR media server.

3. (Currently Amended) The method as set forth in claim 1, wherein the step of tuning each of

said television signals in one of a plurality of tuners comprises the step of tuning said television signals in a plurality of tuners located in a plurality of PVR media servers.

4. (Original) The method as set forth in claim 1, wherein the step of buffering said television signals on a storage medium comprises the step of storing at least one television signal on a storage medium in at least one PVR media server for a client so as to record at least one television program for said client.

5. (Original) The method as set forth in claim 4, wherein the step of storing at least one television signal comprises the steps of:

assigning a tuner to said client;

allocating space on said storage medium to record said television program; and

storing said television signal on said storage medium during a time scheduled for said television program.

6. (Original) The method as set forth in claim 4, wherein the step of storing at least one television signal comprises the step of resolving any conflicts to assign an available tuner for said television signal.

7. (Original) The method as set forth in claim 6, wherein the step of resolving any conflicts to assign an available tuner for said television program comprises the steps of:

determining whether one of said tuners is available to receive said television signal;

if so, assigning said tuner to receive said television signal;

if not, determining which tuners are potentially available;

querying clients assigned to said tuners potentially available to determine whether said clients desire to cancel recordation of said television program; and

assigning a tuner potentially available to receive said television signal if no clients cancel recordation of said television program.

8. (Original) The method as set forth in claim 1, further comprising the steps of:

generating a first position to identify a location within a selected one of said buffered television signals for a first client; and

generating a second position to identify a location within said selected buffered television signal for a second client, said second position being independent from said first position.

9. (Currently Amended) A system comprising:

a plurality of clients for displaying television signals;

at least one PVR media server coupled to receive a plurality of television signals, said PVR media server comprising:

a plurality of television tuners for tuning each of said television signals, so as to assign at least two of said clients to one or more of said tuners, thereby generating a set of assigned clients;

a storage medium, coupled to said television tuners, for buffering said television signals, the PVR media server configured for maintaining a write position for the buffering; and

a network for coupling said clients to said PVR media server and for transferring said buffered television signals to said assigned clients,

wherein the system is configured for selecting a set of tuners for tuning the received signals,

wherein the selected tuners are coupled to storage media for buffering the signals for the assigned clients.

10. (Original) The system as set forth in claim 9, wherein said at least one PVR media server comprises a single PVR media server comprising a plurality of tuners.

11. (Original) The system as set forth in claim 9, wherein said at least one PVR media server comprises a plurality of tuners located in a plurality of PVR media servers.

12. (Original) The system as set forth in claim 9, wherein said PVR media server further comprising storage medium for storing at least one television signal so as to record said television program.

13. (Original) The system as set forth in claim 12, wherein said system further comprises software for assigning a tuner to said client, for allocating space on said storage medium to record said

television program, and for storing said television signal on said storage medium during a time scheduled for said television program.

14. (Original) The system as set forth in claim 12, wherein said system further comprises software for resolving any conflicts to assign an available tuner for said television signal.

15. (Original) The system as set forth in claim 14, further comprising software for determining whether one of said tuners is available to receive said television signal;

if so, for assigning said tuner to receive said television signal;

if not, for determining which tuners are potentially available, for querying clients assigned to said tuners potentially available to determine whether said clients desire to cancel recordation of said television program, and for assigning a tuner potentially available to receive said television signal if no clients cancel recordation of said television program.

16. (Original) The system as set forth in claim 12, further comprising software for generating a first position to identify a location within a selected one of said buffered television signals for a first client, and for generating a second position to identify a location within said selected buffered television signal for a second client, said second position being independent from said first position.

17. (New) A method of networking video recording devices, the method comprising:

receiving a plurality of signals, thereby generating a set of received signals;

selecting a plurality of tuners located within a network;

tuning the received signals by using the tuners selected within the network;

coupling the tuners to a plurality of storage media;

buffering the received signals by using a first storage medium in at least a first PVR media server thereby generating a set of buffered signals, the first PVR media server configured for maintaining a write position for the buffering.

18. (New) The method of claim 17, further comprising:

selecting a first tuner for a first received signal, wherein the step of selecting comprises the step of resolving conflicts relating to the selecting, wherein the first tuner comprises an available tuner on the network;

coupling the first tuner to the first storage medium;

allocating space on the first storage medium to record received signals; and

storing the first received signal on the first storage medium during a predetermined time.

19. (New) The method of claim 18, wherein the step of resolving conflicts to select an available tuner comprises the steps of:

determining whether the first tuner is available to receive a signal;

if so, selecting the first tuner to receive the signal;

if not, determining a second tuner that is potentially available for selection;

determining whether the second tuner has assigned clients;

if the second tuner has assigned clients, querying the clients assigned to the second tuner to determine whether the assigned clients permit reassignment of the second tuner; and

if reassignment is permitted, selecting the second tuner to receive the received signal,

if reassignment is not permitted, then searching for a third tuner available for selection on the network.

20. (New) The method of claim 17, further comprising:

selecting tuners located within the first PVR media server within the network, the first PVR media server comprising a plurality of tuners;

coupling a plurality of clients, by using the network, to the first PVR media server;

assigning at least a first client and a second client to at least a first tuner and a second tuner;  
and

transferring, over the network, the buffered signals to the first and second clients.

21. (New) The method of claim 17, further comprising the step of selecting a plurality of tuners located in a plurality of PVR media servers distributed over the network.



## REMARKS

Within the Office Action dated May 03, 2007, the Examiner rejected claims 1-4 and 9-12 under 35 U.S.C section 103(a) as being unpatentable over United States Patent 7,089,321 B2 to Hayashi (Hayashi). Claims 6-7 and 14-15 were rejected under 35 U.S.C. section 103(a) as being unpatentable over Hayashi, and further in view of United States Patent Application 2004/0,218,905 A1 to Green et al. (Green). Claims 5 and 13 were rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Green. Claims 8 and 16 were rejected under section 103(a) as being unpatentable over Hayashi, and further in view of United States Patent 6,857,130 B2 to Srikantan.

By this amendment Applicants amend claims 1, 3 and 9, and add new claims 17-21. Accordingly, claims 1-21 will be pending in the application upon entry of this amendment.

### **I. Rejection of Claims 1-8**

The Examiner rejected claims 1-4 under section 103(a) as being unpatentable over (Hayashi). Claims 6-7 were rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Green. Claim 5 was rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Green. Claim 8 was rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Srikantan. Claims 2-8 are dependent on claim 1.

Claim 1 recites a method for networking television recording devices. The method receives multiple television signals and selects a set of tuners from a plurality of tuners available on a network. The method tunes each of the television signals in one of the tuners selected from the plurality of tuners, and buffers the television signals on a storage medium in at least one PVR media server. The PVR media server is particularly configured for maintaining a write position for the buffering. The method couples several clients, over the network, to the PVR media server, assigns at least two of the

clients to one or more of the tuners, and transfers, over the network, buffered television signals to the clients.

Applicants respectfully submit that Hayashi does not disclose, teach, or even suggest such a method. For instance, the cited portion of Hayashi does not disclose a method of networking recording devices, and more specifically, does not disclose a personal video recording (PVR) media server that is particularly configured to maintain a write position for buffering. Hayashi also does not disclose selecting a set of tuners from a plurality of tuners available over a network. In contrast, Hayashi illustrates, describes, and is directed to a single set of tuners, fixed within a single server. Hence, Hayashi actually teaches against the limitations of claim 1.

Accordingly, the cited references do not render unpatentable claim 1. Since claims 2-8 are dependent on claim 1, Applicants respectfully submit that the cited references do not render unpatentable claims 2-8 for at least the reasons discussed above in relation to claim 1. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-8.

## **II. Rejections of Claims 9-16**

The Examiner rejected claims 9-12 under section 103(a) as being unpatentable over Hayashi. Claims 14-15 were rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Green. Claim 13 was rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Green. Claim 16 was rejected under section 103(a) as being unpatentable over Hayashi, and further in view of Srikantan. Claims 10-18 are dependent on claim 9.

Claim 9 recites a system that includes several clients for displaying television signals, and at least one PVR media server coupled to receive several television signals. The PVR media server has

several television tuners for tuning each of the television signals, so as to assign at least two of the clients to one or more of the tuners, and thereby generate a set of assigned clients. The system further includes a storage medium and a network. The storage medium is coupled to the television tuners, and is for buffering the television signals. The network is for coupling the clients to the PVR media server and for transferring the buffered television signals to the assigned clients. The PVR media server is particularly configured for maintaining a write position for the buffering. The system is configured for selecting a set of tuners for tuning the received signals. The selected tuners are coupled to storage media for buffering the signals for the assigned clients.

Applicants respectfully submit that Hayashi does not disclose, teach, or even suggest such a system. For instance, the cited portion of Hayashi does not disclose a system for networking recording devices, and more specifically, does not disclose a personal video recording (PVR) media server that is particularly configured to maintain a write position for buffering. Hayashi also does not disclose a system that selects a set of tuners from a plurality of tuners available over a network. In contrast, Hayashi illustrates, describes, and is directed to a single set of tuners, fixed within in a single server. Hence, Hayashi actually teaches against the limitations of claim 9.

Accordingly, the cited references do not render unpatentable claim 9. Since claims 10-16 are dependent on claim 9, Applicants respectfully submit that the cited references do not render unpatentable claims 10-16 for at least the reasons discussed above in relation to claim 9. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 9-16.

### **III. New Claims 17-21**

Applicants add new claims 17-21. Applicants respectfully submit that the cited references do not disclose, teach, or even suggest the limitations recited by these new claims. For instance, new

claim 17 recites a method of networking video recording devices that receives multiple signals, and thereby generates a set of received signals. The method selects several tuners located within a network, and tunes the received signals by using the tuners selected within the network. The method couples the tuners to several storage media, and buffers the received signals by using a first storage medium in at least a first PVR media server thereby generating a set of buffered signals. The first PVR media server is particularly configured for maintaining a write position for the buffering. In a specific example, the method of claim 18, selects a first tuner for a first received signal, and advantageously resolves potential conflicts relating to the selection of available tuners. The first tuner preferably comprises an available tuner on the network, and the first tuner is coupled to the first storage medium. Hence, the method allocates space on the first storage medium to record received signals, and stores the first received signal on the first storage medium during a predetermined time.

Accordingly, Applicants respectfully submit that the cited references do not render unpatentable new claims 17-21. In view of the foregoing, Applicants respectfully request examination and allowance of claims 17-21.

## CONCLUSION

Based on the foregoing remarks, Applicants believe that the application is in condition for allowance. If the Examiner has any questions regarding the case, the Examiner is invited to contact Applicants' undersigned representative at the number given below.

Respectfully submitted,

STATTLER | SUH, P.C.

Dated: July 30, 2007

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